

**Non-native Plant Inventory of the Sitka/Hoonah Area:  
Summary of 2007 Roadside Surveys on Baranof, Chichagof,  
and Kruzof Islands, SE Alaska**  
*Final Report for USDA Forest Service Region 10  
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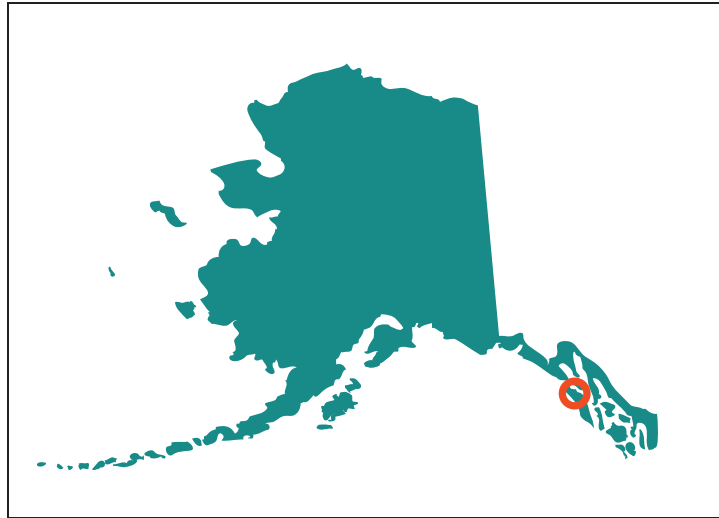


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## 1. Introduction

In June 2007, the USDA Forest Service contracted with Prince of Wales Tribal Enterprise Consortium, LLC (Contractor) to conduct a roadside non-native plant inventory on the northern islands of the Alexander Archipelago in southeastern Alaska (*Figure 1*). The goal of the Sitka/Hoonah Non-native Plant Inventory was to document the extent and character of non-native plant populations on road rights-of-way on state and private lands and on Forest Service controlled rights-of-way in and around the communities of Sitka and Hoonah.

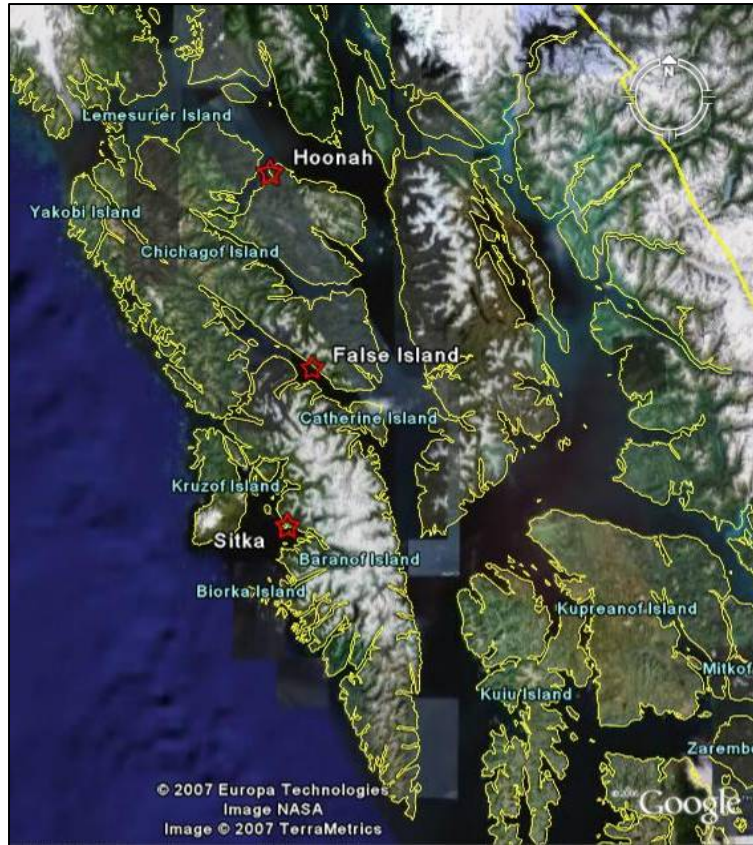


**Figure 1.** Project area location map

This report summarizes the results of the Sitka/Hoonah Non-native Plant Inventory. In addition to field surveys, the project included:

- Submission of all plot data to the state interagency non-native plant database (AKEPIC)
- Preparation and submission of voucher specimens
- Photo and map documentation of focal species
- Summary report of findings

The Sitka/Hoonah non-native plant project area included busy urban highways as well as seldom-used logging roads with high brown bear densities. At False Island and Kruzof Island, roads were not maintained for passenger vehicles or accessible to them, so ATVs were used to establish base camps and survey the roads. The survey area was originally to include 333 miles of federal, state and private roads in the Alexander Archipelago of southeastern Alaska: the Hoonah and False Island road systems of Chichagof Island, the Sitka road system of Baranof Island, and the Mud Bay road system of Kruzof Island (*Figure 2*). During the survey, the planned Hoonah mileage was reduced to focus on public and main roads (*Appendix E, Maps of Survey Areas*).



**Figure 2.** Project area magnified.  
(Satellite image modified from Google Earth.)

## 2. Methods

Fieldwork for the Sitka/Hoonah Non-native Plant Inventory began July 12<sup>th</sup> and concluded September 8<sup>th</sup> 2007. The survey covered 183 miles with 751 plots on Baranof, Kruzof and Chichagof Islands. Table 1 provides a summary of the miles and plots surveyed at each location. Additional detail is provided in *Appendix E, Maps of Survey Areas* and *Appendix G, Complete List of Roads Surveyed*.

**Table 1.** Road Miles Surveyed

Road System	Miles	Plots
Hoonah, NE Chichagof Island	92.2	361
False Island, Chichagof Island	39.8	175
Kruzof Island	21.4	101
Sitka, Baranof Island	29.4	114
<b>TOTAL</b>	183	751



The project field protocol followed the guidelines for the Alaska interagency invasive plant database (see <http://aknhp.uaa.alaska.edu/>) and a sampling scheme designed by the U.S. Forest Service. Survey plots were placed at a density of 4 to 5 per mile on a variety of surfaces, from paved roads to steep unmaintained ATV trails. On the designated roads, plots were placed at approximately quarter mile intervals and at rock pits, pullouts, recreation sites, parking areas, and intersections. Slight adjustments to the quarter mile interval were made at some locations for safety considerations or to include pullouts within the “quarter mile” plots where there were numerous pullouts along logging roads. To maintain a plot density between 4 or 5 per mile, some intersections or pullouts were not surveyed where those were particularly numerous.

The plots were centered on the road prism and included the right-of-way on either side. The right-of-way on public land was defined for the survey as the area within 15 meters of the center of the roadway or the edge of the cleared area, whichever was greater. Plots were surveyed by walking roadsides 25 meters in each direction while recording all non-native species present. At each plot, surveyed area, disturbance type, and vegetation classification were recorded and non-native plant species infested area, percent cover, and stem count were estimated, recorded and linked to site coordinates with a data-logger. Infestations expanding into natural habitats were rated for aggressiveness *as per* the AKEPIC manual data dictionary (<http://aknhp.uaa.alaska.edu/>). Geographic coordinates of plot centers were obtained with a mapping grade GPS unit. Plots were marked in the field with biodegradable flagging labeled with a plot identifier and date.



**Photo 1.** Reed canary grass (*Phalaris arundinaceae*) encroaching on a fen near Freshwater Bay, Hoonah road system.

The protocol included collection and preparation of voucher specimens for non-native species encountered during the survey: one for each Class II (widespread) species and two for Class I (known and potential invasive plant) species. Appendices A & B provide lists of Class I and Class II species. Plots containing species considered potentially or currently highly invasive in the region (Alaska Natural Heritage Program, 2005), and designated “High Priority Species” by the Forest Service were labeled in the field and photographed. High priority species are listed in Table 2.

**Table 2.** Sitka/Hoonah High Priority Species

Scientific Name	Common Name
<i>Alliaria petiolata</i>	garlic mustard
<i>Centaurea biebersteinii</i> DC	spotted knapweed
<i>Cirsium arvense</i> (L.) Scop.	Canada thistle
<i>Cirsium vulgare</i>	bull thistle
<i>Convolvulus arvensis</i>	field bindweed
<i>Geranium robertianum</i>	herb-Robert
<i>Hieracium aurantiacum</i> L.	orange hawkweed
<i>Hieracium caespitosum</i> Dumort.	meadow hawkweed
<i>Hieracium umbellatum</i> L. <i>H. pilosella</i> , <i>H. lachenalii</i>	mouse-ear, narrow-leaved, and common hawkweed
<i>Hypochaeris radicata</i>	hairy cat's ear
<i>Impatiens glandulifera</i>	ornamental jewelweed
<i>Linaria vulgaris</i>	butter and eggs
<i>Lythrum salicaria</i>	purple loosestrife
<i>Melilotus alba</i>	white sweetclover
<i>Polygonum convolvulus</i>	black bindweed
<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Polygonum x bohemicum</i>	Bohemian knotweed
<i>Sonchus arvensis</i>	perennial sow thistle
<i>Sonchus asper</i>	annual sow thistle

In addition to Hulten's Flora of Alaska and Neighboring Territories, the Illustrated Flora of British Columbia was our primary botanical reference, particularly the volumes for grasses and composites (Hulten, 1968; Douglas et al., 1998). Recently published weed-focused and regional field guides were also consulted. (Pojar and MacKinnon, 2007; Royer and Dickinson. 1999; Lamb and Shepherd. 2007; AKEPIC, 2007).

### 3. Results

#### 3.1 Species Diversity

A total of 70 non-native species were identified in plots at the four surveyed areas: 42 of these at Hoonah, 25 at False Island, 13 at Kruzof Island, and 57 at Sitka. Each of the survey areas held a unique array of species as shown in Appendix C, (Non-native Species List). Only 13 species were common to all four survey areas.

Sitka had a much higher average number of species per plot than the other three survey areas, despite the relatively pristine plots on Harbor Mountain. False Island and Hoonah had a similar average number of species per plot, but Hoonah had considerably higher overall non-native species richness, and over ten times more single occurrences. This may be due to the fact that Hoonah has more high use sites with a long history of disturbance.

Single occurrences of species can contribute disproportionately to species richness and diversity in a sample (Chao, A. 2005). These "singletons" were very common at Sitka, indicating that the true non-native species richness is likely greater than the total number

of species counted. Conversely, there were no singletons at Kruzof, suggesting that its relatively sparse non-native plant community was well sampled by the quarter-mile plots.

**Table 3.** Indicators of Non-native Species Richness

	Hoonah	False Island	Kruzof	Sitka
Total no. non-native species at plots	42	25	13	57
Maximum non-native species per plot	21	15	12	19
Mean non-native species per plot	5.8	5.4	1.1	9.2
Median non-native species per plot	5	5	0	9
Species occurring at only one plot	11	1	0	15
Plots with zero non-native species	0	4	52	2
Total plots	361	175	101	114

Several trends in non-native species richness were evident at the surveyed areas. Higher elevation sites and roadsides adjacent to poor fen/bog habitats generally had fewer non-native species, likely due to the shorter growing season and nutrient-poor conditions at those locations. Plots adjacent to rich fens, however, hosted a variety of non-native plant species. Roadsides in residential areas, and at high-use sites along beaches and coastal meadows, had the largest numbers of non-native species.

### 3.2 Cover

As in southern southeast Alaska (Arghngelski, Katie. 2006), reed canary grass (*Phalaris arundinaceae*) was the species with the greatest infested area and cover at most sites, its cover often exceeding 30%. Cover for this species was highest along the Hoonah road system, in some places forming thick “hedges” along and within spur roads. Particularly high percent cover was also documented for creeping buttercup (*Ranunculus repens*), Japanese knotweed (*Polygonum cuspidatum*), herb Robert (*Geranium robertianum*) and hairy cat’s ear (*Hypochoeris radicata*).

### 3.3 Aggressiveness

The AKEPIC survey protocol includes an “aggressiveness” rating of “low”, “medium”, or “high” to document non-native plant populations extending outside the disturbed area and invading natural communities. According to the AKEPIC data dictionary, this information is used to update future non-native plant invasiveness rankings for Alaska (Alaska Natural Heritage Program, 2005).

Several non-native species with high percent cover on roadsides were also observed entering adjacent, apparently undisturbed habitat at some of the plots. These populations were assigned aggressiveness ratings of “medium” or “high” at such plots in accordance with the AKEPIC protocol. Species observed entering natural communities in the survey

area included reed canary grass (*Phalaris arundinaceae*), tall fescue (*Lolium arundinaceae*), and creeping buttercup (*Ranunculus repens*), as well as white clover (*Trifolium repens*), common dandelion (*Taraxacum officinale*), lady's mantle (*Alchemilla mollis*) and purple foxglove (*Digitalis purpurea*).

“High priority” species found on the survey were limited to disturbed areas, including quarries, gardens, a reservoir shoreline, and garden edges. Some of these were rated as aggressive because they appeared to be expanding rapidly, with numerous young plants present (*Sonchus arvensis*), or because they formed continuous cover across extensive areas (*Polygonum cuspidatum*).

## 4. Discussion

### 4.1 Overview of Species Patterns

#### **Hoonah**

Perennial sowthistle (*Sonchus arvensis*) was documented in Hoonah, but no other ‘high priority’ species were encountered on the Hoonah road system. A number of lower priority species were abundant throughout most of the road system, however, and some of these were observed entering native vegetation. Most prominent was reed canary grass (*Phalaris arundinaceae*), a species previously seeded for soil stabilization and widely distributed in developed and logged areas of SE Alaska.

Reed canary grass (*Phalaris arundinaceae*) was ubiquitous and frequently aggressive, often moving into adjacent wetland and open forest areas and along streams. Closed roads with closed red alder canopy had reduced and non-fruiting infestations of reed canary grass. In these areas, more robust infestations were often found where openings provided light, including regenerating clear cuts.

Creeping white clover (*Trifolium repens*) was often abundant along the roadside and was also observed in adjacent *Ledum*-dominated fens and open forest wetlands. Creeping buttercup (*Ranunculus repens*) is not yet well established distant from Hoonah, but is spreading along Gartina Creek and other scattered sites including the Freshwater Creek drainage.

Species richness and cover increased near the community of Hoonah, as expected, but also near other areas of intensive past or present use. Species richness of non-native plants was high at former log transfer sites and recreation sites such as Kennel Creek Landing, where there is extensive meadow habitat with a long history of disturbance.

Oxeye daisy (*Leucanthemum vulgare*) has spread up the road from the Kennel Creek Landing, and thick growth of creeping white clover is present along roadsides near Kennel Creek. There were also hotspots at trailheads for the Wukulook and Suntaheen Creek trails, the beach access areas at False Bay and the heavily used landing at Whitestone Harbor.



Species richness at rock quarries was moderately high but quite variable. In general, species richness and cover appeared to decrease with increasing elevation and was lowest in the long high pass between Freshwater Bay and Game Creek.

Garden escapees were evident in developed areas, along with common weeds such as creeping bentgrass (*Agrostis stolonifera*). The limestone in the Hoonah area, and specifically in rock cuts at the north end of town, may contribute to the invasiveness of garden escapees such as lady's mantle (*Alchemilla mollis*), which was observed expanding up a hillside into native vegetation and under shade. Common comfrey (*Symphytum officinale*) and brittlestem hempnettle (*Galeopsis tetrahit*) had colonized Hoonah yards and vacant lots, but were not found in our sampled plots.

Non-native species found on the Hoonah road system that were not included on the Alaska non-native plant lists (Appendices A and B) included tall oatgrass (*Arrhenatherum elatius*), sweet cicely or anise (*Myrrhis odorata*), woodland forget-me-not (*Mysotis sylvatica*), and fowl bluegrass (*Poa palustris*).

### ***False Island***

Non-native species were most numerous along the coast at the former False Island logging camp, fuel storage/turnaround, garage and other high-use intersections and pullouts near the water. As observed on the Hoonah road system, reed canary grass (*Phalaris arundinacea*) was growing thickly over most roadsides, sometimes spilling into adjacent and apparently undisturbed wetland or open forest habitats. Creeping buttercup (*Ranunculus repens*) was present on the 7540 road near the coast, and at a landing across from the Chatham cannery.

Non-native species richness was lowest in dense shade where a canopy of alder and Sitka spruce covered the road. In these areas, non-native species were often limited to annual bluegrass (*Poa annua*), common plantain (*Plantago major*), and nipplewort (*Lapsana communis*). Where low-growing alder (often a mix of Sitka and red alder) grew across both sides of the road at face height, reed canary grass (*Phalaris arundinacea*) could be absent from the road or roadside but persist at the back edge of the roadside alder and into the canopy openings provided by adjacent clear-cuts or wetlands.

On the wider, more open roads, we typically found tall fescue (*Lolium arundinacea*) mixed with the reed canary grass on the roadside, as had been observed on the Hoonah road system. Orchard grass (*Dactylis glomerata*) and common plantain (*Plantago major*) grew on the road edge and back into the reed canary grass (*Phalaris arundinacea*). Common dandelion (*Taraxacum officinale*) and annual bluegrass (*Poa annua*) was found on the road edge and into the roadbed.

At the Sitkoh Lake West Forest Service cabin, there is reed canary grass (*Phalaris arundinacea*) at the lake edge along with common plantain (*Plantago major*) and annual bluegrass (*Poa annua*). The infestation is centered at the mouth of a currently dry alluvial channel and is similar to species composition where the 7544 road crosses the same channel. At this crossing, chunks of bank containing these species were unraveling into the channel.

### ***Kruzof Island***

Species richness and cover of non-native plants were generally lower on the Kruzof Island Mud Bay/Shelikof road system than at other areas surveyed. No “high priority” species were found on Kruzof Island. Approximately half the plots had no non-native species, and others had only annual bluegrass (*Poa annua*). Most striking was the lack of reed canary grass (*Phalaris arundinacea*) along stretches of road where apparently suitable potential habitat was available.

Non-native species were most numerous at high use areas along the coast and where evidence of recent construction activities was observed. These areas include the Mud Bay landing, pullouts by Iris Meadows, the radio tower on the Cinder Cone, a rockpit on Cinder Cone road, bridges on the main road between Mud Bay and Shelikof, and a rock ford on the Twin Lakes road.

Several occurrences of species that are common elsewhere but largely absent from Kruzof deserve particular mention due to their location in vulnerable habitats and their high potential for spread.

- Reed canary grass (*Phalaris arundinacea*) was found at scattered locations along the roads and more frequently near the coast on the Mud Bay side. On roads with an alder/spruce canopy, some of them quite remote, it was sometimes found persisting under dense shade in prostrate and altered form. It was present along major salmon stream channels crossing the main 7590 (Mud Bay) road.
- Creeping buttercup (*Ranunculus repens*) was common at and near the Mud Bay landing, but present only in a few dense patches elsewhere. Creeping buttercup has covered the road embankment along the new rock ford on the upper Twin Lakes road.
- Purple foxglove (*Digitalis purpurea*) is common in Sitka but was found at only a few sites on Kruzof Island. It was growing around the shelter at Mud Bay and at one location on the 7590 road on the way to Shelikof Bay.

### ***Sitka***

Non-native species richness and cover were much higher on Sitka roads than at other areas surveyed. The average number of species per plot increased from approximately 5 on the False Island road system to over 9 in the Sitka area. Numerous plots had more than fifteen non-native species.

As noted below, several high priority species were found on our quarter-mile plots in Sitka: Japanese knotweed (*Polygonum cuspidatum*), narrow-leaf and orange hawkweeds (*Hieracium umbellatum* and *aurantiacum*), hairy cat’s ear (*Hypochoeris radicata*), butter-and-eggs (*Linaria vulgaris*), ornamental jewelweed (*Impatiens glandulifera*), and herb-

Robert (*Geranium robertianum*). The Japanese knotweed and hairy cat's ear were most common along the shoreline at Sawmill Creek road.

Creeping buttercup (*Ranunculus repens*) and purple foxglove (*Digitalis purpurea*) are present at most plots. Creeping buttercup often formed dense ground cover and was observed growing into adjacent habitats. Purple foxglove (*Digitalis purpurea*) was widespread in Sitka, and abundant in long stretches of beach fringe habitats at Sawmill Cove. Common groundsel (*Senecio vulgaris*) is also common throughout Sitka and is particularly prevalent in the recently excavated and seeded areas on Sawmill Ck road.

Gardens in Sitka contain a number of high priority and potentially invasive species. The butter-and-eggs (*Linaria vulgaris*, Photo 2) and ornamental jewelweed (*Impatiens glandulifera*) noted above were only marginally contained. Gardens in Sitka also host



Scotch broom (*Cytisus scoparius*), yellow iris (*Iris pseudacorus*), and what appeared from a distance to be purple loosestrife (*Lythrum salicaria*) and possibly field bindweed (*Convolvulus arvensis*). The possible purple loosestrife was located in a large dooryard garden at Cascade Ck. road on the left as you ascend the hill toward Edgecumbe Drive.

Non-native species found in Sitka that were not included on the Alaska non-native species lists (Appendices A and B) include creeping velvet grass (*Holcus mollis*), woodland forget-me-not (*Myosotis sylvatica*), fowl bluegrass (*Poa palustris*) and sweet vernal grass (*Anthoxanthum odoratum*).

**Photo 2.** The high priority species butter and eggs (*Linaria vulgaris*) was blooming in Sitka in September, suggesting that it may not set seed before the growing season ends in some years.

## 4.2 High Priority Species

High priority species populations documented by the survey are described below. Additional information on high priority species, including geographic coordinates, can be found in *Appendix F, High Priority Species Locations*.

### 4.2.1 Perennial sow thistle (*Sonchus arvensis*), 5 plots, all in Hoonah

Perennial sow thistle was found only on NE Chichagof Island at Hoonah, where five plots contained the high priority species. Three were “quarter-mile” plots on the main road through the city of Hoonah (HRD 8502); two were additional plots established to further document the infestation.

Over twenty plants were found within plot HRD 8502-45 at a large overburden fill site at the southern edge of Hoonah. While in the vicinity, we established another perennial sow thistle-containing plot (HRD 8502-45a) at an adjacent overburden site. We also found the species growing abundantly in the graveyard across from the ferry terminal entrance (HRD 8502-54) and at a rock pit on the road to Icy Point (HRD 8502-56). Within the rock pit, perennial sow thistle was found in scattered patches of 5 to 20 plants, mostly on mounds of soil in the southern portion of the quarry. The pit contained stumps and piles of peaty soil from construction overburden. An additional plot (“SOAR2 Hoonah proper”) was established for perennial sow thistle one block above Second St., on a steep roadside embankment at the corner of Hemlock and Cedar Streets. We also provided point locations for infestations on the block above Hemlock near Raven Dr., above Cedar Street (#2 SOAR2 0730), and on the uphill side of Second Street (#1 SOAR2 0730).

Our survey documents that perennial sow thistle is well established within the city of Hoonah. It appears to be centered around yards on the northern end of Second Street, extending north along the beach fringe at Icy Straits Point and south to the overburden site south of the airport. The sow thistle infestation presents a risk to natural communities given its location along the shoreline, where it could eventually spread in the beach fringe to extensive meadows at Spasski estuary and beyond, as it has near Hyder, Alaska (Heutte and Lamb, 2006).

### 4.2.2 Narrow-leaf hawkweed (*Hieracium umbellatum*)—7 plots

Six plots containing the high priority species narrow-leaf hawkweed were completed on the False Island road system: one between the False Island dock and the USFS compound (plot SRD 7540-04), two in the pass on the main road 7540 (SRD 7540-25 and 7540-15a), two in the upper Sitkoh Valley (SRD 7540-51 and 51A), and one on a spur off the main road (7540-02). Narrow-leaf hawkweed was also present at the top of Blue Lake Rd in Sitka (SRD 7577-1) and along the adjacent Blue Lake shoreline.

### 4.2.3 Japanese knotweed (*Polygonum cuspidatum*)—9 Sitka plots

Japanese knotweed infestations were documented at plots SRD FH11-14, 16, 19, 21, 22, 26, 28, and 67 (on Sawmill Ck and Halibut Pt Rds) and at Japonski-02 on Harbor Dr. near the intersection with Tongass Drive. Knotweed is very well established throughout

much of the Sitka road system, but is most prominent along Sawmill Creek road east of downtown Sitka where it forms large hedges along the shore and adjacent to houses.

#### **4.2.4 Hairy cat's ear (*Hypochoeris radicata*)—3 Sitka plots**

Hairy cat's ear plants were found at plots SRD FH11-18 by Thimbleberry Bay, en route to the airport at Japonski-02, and on Halibut Pt. Rd. in a lawn at the SeaMart intersection (plot SRD-FH11-53). We have also documented point locations of plants just west of plots SRD FH11-25 and SRD FH11-20, and scattered along Sawmill Creek between those plots. It is widely distributed in Sitka, particularly on grassy, sunny, and well-drained embankments. This appears to be a new and rapidly expanding infestation.

#### **4.2.5 Herb-Robert (*Geranium robertianum*)—3 Sitka plots**

Herb Robert is present at widely scattered locations on both sides of town in Sitka. It dominated the beach fringe along portions of Sawmill Cove Rd in Jamestown Bay (plot SRD FH11-20), and was also present at Sawmill & Cedar Beach Road (SRD FH11-18) and near Halibut Point (SRD FH11-60).

#### **4.2.6 Orange hawkweed (*Hieracium aurantiacum*)—one Sitka plot**

Orange hawkweed was found at one Sitka plot on Halibut Pt. Rd. in a yard near the highway (plot SRD-FH11-52).



**Photo 3.** Ornamental jewelweed (*Impatiens glandulifera*), a garden plant invasive in other parts of Southeast, was found escaping a Sitka garden.

#### **4.2.7 Butter and eggs (*Linaria vulgaris*)—one Sitka plot**

Several Sitka gardens, including downtown Sawmill Creek plot SRD FH11-26, host butter and eggs (*Linaria vulgaris*). It is not clear if these garden occurrences are tended plants escaping gardens or weeds at an early stage of infestation.

#### **4.2.8 Ornamental jewelweed (*Impatiens glandulifera*)—one Sitka plot**

Ornamental jewelweed (Photo 3) was found escaping into a road embankment from an extensive garden at a residence on Halibut Point Rd, .25 miles past Halibut Pt. (plot SRD FH11-63).



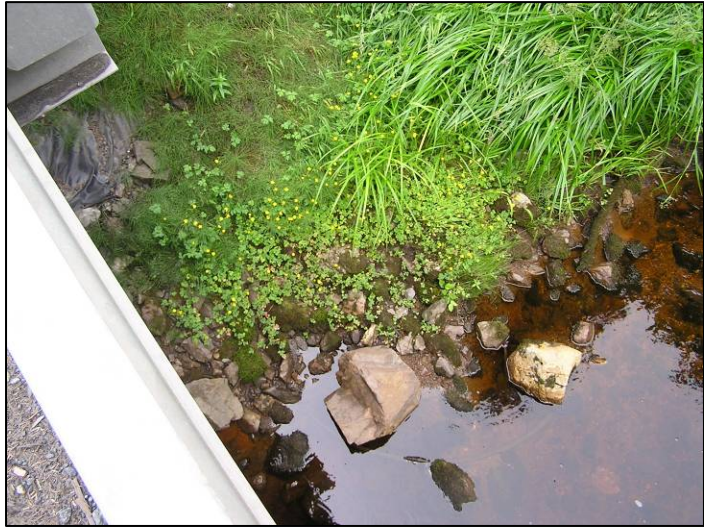
### 4.3 Species Suggested for Immediate Control

Due to risks to natural habitat and/or an early stage of infestation, several high priority species populations are highlighted here as potential priorities for control. Selected populations of species not designated high priority are also noted here due to the nature of affected habitats and the early stage of infestation at the landscape level as documented by the survey.

- The Hoonah perennial sowthistle (*Sonchus arvensis*) infestation appears to be the most serious invasive plant threat to natural communities in the Sitka/Hoonah area. Given its location in soil storage areas, quarries, and shoreline habitats, the Hoonah population is likely to continue spreading to new construction sites and along the coast. Control efforts are ongoing, and continuing control is recommended. Removal of populations at the quarries and soil storage areas described in section 4.2.1 could help to reduce the likelihood of dispersal on construction equipment and in transported fill.
- While not common, the high priority species narrow-leaf hawkweed (*Hieracium umbellatum*) was found in widely scattered patches on the Tongass National Forest False Island road system where it may be poised for additional spread. It was also found at the top of Sitka's Blue Lake road along the shoreline adjacent to National Forest Land. Unlike other hawkweed species, narrow-leaf hawkweed does not appear to form complete ground cover with basal rosettes, but control may be warranted while the infestation is at an early stage. Additional observation during its peak flowering interval would be helpful in assessing the potential for control, given the spotty distribution.
- Japanese knotweed (*Polygonum cuspidatum*) is well established on private land in Sitka, where previous surveys and control actions have focused on this high priority species (Borchert, 2004; Lamb and Shepherd, 2007). During our survey in their neighborhoods, residents approached us to inquire about control methods. The species is currently spreading or re-sprouting where Sawmill Creek Road has been rebuilt by the Thimbleberry Lake trailhead. Among the documented Japanese knotweed sites, the one at a soil storage area in the quarry on Halibut Pt. Road is suggested as a priority for local control efforts due to the risk of dispersal via transport of plant fragments to construction areas within fill and on construction equipment.
- Removal of roadside populations of hairy cat's ear (*Hypochoeris radicata*) and herb Robert (*Geranium robertianum*) could reduce the potential for spread to natural habitats in Sitka. Both species form dense cover in Sitka where they are established, and both have recently been observed spreading into natural habitats at other locations in southeast Alaska (Arhangelsky, Katie. 2006).

Several lower priority species were observed colonizing wetlands, riparian areas, and shorelines at a number of locations across the project area. Timely, strategic control could be considered for these near sensitive habitats, particularly in landscapes where there are only a few occurrences of these species:

- Early phase infestations of creeping buttercup (*Ranunculus repens*) include the rock ford at Twin Lakes road on Kruzof, Gartina Creek at Hoonah, and Sitkoh Bay landing at False Island.



**Photo 4.** Creeping buttercup (*Ranunculus repens*) at Gartina Creek on the Hoonah road system.

- Removal could also be considered where reed canary grass (*Phalaris arundinaceae*) is at an early phase of colonization at the Sitkoh Lake shoreline (W Sitkoh cabin) and Kruzof Island (Mud Bay Rd.) fish streams.
- Similarly, purple foxglove (*Digitalis purpurea*) could potentially be eliminated from Kruzof Island's Mud Bay road system via control at the two documented sites: Mud Bay landing and a former rock pit along Mud Bay road.



**Photo 5.** Reed canary grass (*Phalaris arundinaceae*) is abundant on the NE Chichagof Island roads, here forming a "hedge" on HRD 8514.

#### **4.4 Species for Further Observation**

As noted above, several common and widespread non-native species were observed altering the composition of natural communities adjacent to roads in remote locations. Additional observation is suggested to track the expansion of these species into open forest, beach meadow, and wetland habitats on NE Chichagof Island: white clover (*Trifolium repens*), common dandelion (*Taraxacum officinale*), and reed canary grass (*Phalaris arundinaceae*).

Continued observation is suggested as a means to track the spread of potentially invasive species currently contained, or partially contained, in gardens. These include Scotch broom (*Cytisus scoparius*), butter-and-eggs (*Linaria vulgaris*), ornamental jewelweed (*Impatiens glandulifera*), and purple loosestrife (*Lythrum salicaria*). Further observation is also recommended for newly documented and less common species such as large-leaved lupine (*Lupinus polyphyllus*), lady's mantle (*Alchemilla mollis*), sweet cicely (*Myrrhis odorata*) and tall oatgrass (*Arrhenatherum elatius*).

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## APPENDIX A. Class I Species List

**Class 1. Known and Potential Invasive Plants of Alaska that may occur on Sitka and Hoonah area road systems. Two vouchers of each of these species to be collected.**

CODE	Scientific name (Hulten 1968; or Kartesz *)	Common Name	Family
ACFI	<i>Achillea filipendulina</i> Lam.	fernleaf yarrow	Asteraceae
AGCA5	<i>Agrostis capillaris</i> L.	colonial bentgrass	Poaceae
AGGI2	<i>Agrostis gigantea</i> Roth	creeping bentgrass, red top	Poaceae
AGST2	<i>Agrostis stolonifera</i> L.	creeping bentgrass, red top	Poaceae
ALGE2	<i>Alopecurus geniculatus</i> L.	water foxtail	Poaceae
ALPE4	<i>Alliaria petiolata</i> (Bieb.) Cavara & Grande	garlic mustard	Brassicaceae
ALPR3	<i>Alopecurus pratensis</i> L.	meadow foxtail	Poaceae
AMRE	<i>Amaranthus retroflexus</i> L.	redroot pigweed	Amaranthaceae
ANCO2	<i>Anthemis cotula</i> L.	mayweed	Asteraceae
ANTI	<i>Anthemis tinctoria</i> L.	yellow chamomile	Asteraceae
ARGL	<i>Arabis glabra</i> (L.) Bernh.	tower rockcress	Brassicaceae
ASCI4	<i>Astragalus cicer</i> L. ?*	chickpea milkvetch, cicer milkvetch	Fabaceae
ASPR	<i>Asperugo procumbens</i> L.	German-madwort	Boraginaceae
AVFA	<i>Avena fatua</i> L.	wild oats	Poaceae
BEIN2	<i>Berteroa incana</i>	hoary false madwort	Brassicaceae
BEPE3	<i>Betula pendula</i>	European white birch	Betulaceae
BICE	<i>Bidens cernua</i> L.	bur-marigold, nodding beggar-ticks	Asteraceae
BRHO2	<i>Bromus hordeaceus</i> L.	soft brome	Poaceae
BRINI	<i>Bromus inermis</i> Leyss. Ssp. <i>Inermis</i>	smooth brome	Poaceae
BRJU	<i>Brassica juncea</i> (L.) Czern.	indian mustard	Brassicaceae
BRNA	<i>Brassica napus</i> L.	rape	Brassicaceae
BRRR	<i>Brassica rapa</i> L.	field mustard	Brassicaceae
BRRAR	<i>Brassica rapa</i> L. var. <i>rapa</i>	purple-topped turnip	Brassicaceae
BRSE	<i>Bromus secalinus</i> L.	rye brome, cheat	Poaceae
BRTE	<i>Bromus tectorum</i> L.	cheatgrass, downy brome	Poaceae
CEBI2	<i>Centaurea biebersteinii</i>	spotted knapweed	Asteraceae
CEFO2	<i>Cerastium fontanum</i> Baumg.	larger mouse-eared chickweed	Caryophyllaceae
CEGL2	<i>Cerastium glomeratum</i> Thuill.	sticky chickweed	Caryophyllaceae
CHBE4	<i>Chenopodium L. berlandieri</i>	pitseed goosefoot	Chenopodiaceae
CHLE4	<i>Chenopodium leptophyllum</i> (Moq.) Nutt. Ex S. Wats.	narrowleaf goosefoot	Chenopodiaceae
CIAR4	<i>Cirsium arvense</i> (L.) Scop.	Canada thistle	Asteraceae
CIIN	<i>Cichorium intybus</i> L.	chicory	Asteraceae
CIVU	<i>Cirsium vulgare</i> (Savi) Ten.	bull thistle	Asteraceae
COLI2	<i>Collomia linearis</i>	tiny trumpet	Polemoniaceae
COAR4	<i>Convolvulus arvensis</i>	field bindweed	Convolvulaceae
COCA5	<i>Conyza Canadensis</i>	Canadian horseweed	Asteraceae
COCO7	<i>Cotula coronopifolia</i> L.	brass Buttons	Asteraceae
CRTE3	<i>Crepis tectorum</i> L.	narrowleaf hawksbeard	Asteraceae
CYSC4	<i>Cytisus scoparius</i> (L.) Link	Scotch Broom	Fabaceae
DEEL	<i>Deschampsia elongata</i> (Hook.) Munro	slender hairgrass	Poaceae
DEPI	<i>Descurainia pinnata</i>	western tansy mustard	Brassicaceae
DESO2	<i>Descurainia sophia</i> (L.) Webb ex Prantl	tansy mustard	Brassicaceae
DIDE	<i>Dianthus deltoides</i> L.	maiden pink	Caryophyllaceae
ELSI	<i>Elymus sibiricus</i> L.	Siberian wild rye	Poaceae



CODE	Scientific name (Hulten 1968; or Kartesz *)	Common Name	Family
ERIC16	<i>Erodium cicutarium</i>	redstem stork's bill	Geraniaceae
ERCH9	<i>Erysimum cheiranthoides</i> L.	wormseed mustard	Brassicaceae
ERGA	<i>Erucastrum gallicum</i> (Willd.) O.E. Schulz*	common dogmustard	Brassicaceae
FRAN	<i>Fragaria ananassa</i> Duchesne (pro sp.) [chiloensis x virginiana]	domestic strawberry	Rosaceae
GABI3	<i>Galeopsis bifida</i> Boenn.	splitlip hempnettle	Lamiaceae
GATE2	<i>Galeopsis tetrahit</i> L.	brittlestem hempnettle	Lamiaceae
GNPA	<i>Gnaphalium palustre</i>	marsh cudweed	Asteraceae
HEAN3	<i>Helianthus annuus</i> L.	annual (common) sunflower	Asteraceae
HIAU	<i>Hieracium aurantiacum</i> L.	orange Hawkweed	Asteraceae
HICA10	<i>Hieracium caespitosum</i> Dumort.	meadow hawkweed	Asteraceae
HILA8	<i>Hieracium lachenalii</i> K.C. Gmel.	common hawkweed	Asteraceae
HIPI	<i>Hieracium pilosella</i> L.	mouseear hawkweed	Asteraceae
HIUM	<i>Hieracium umbellatum</i>	narrow-leaf hawkweed	Asteraceae
HOJU	<i>Hordeum jubatum</i> L.	foxtail barley	Poaceae
HOLA	<i>Holcus lanatus</i> L.	common velvetgrass	Poaceae
HOMUL	<i>Hordeum murinum</i> L. spp <i>leporinum</i> (Link)	Leporinum barley	Poaceae
HYPE	<i>Hypericum perforatum</i> L.	common St. Johnswort	Clusiaceae
HYRA3	<i>Hypochoeris radicata</i> L.	cat's-ears	Asteraceae
IMGL	<i>Impatiens glandulifera</i>	ornamental jewelweed	Balsaminaceae
LACO3	<i>Lapsana communis</i>	common nipplewort	Asteraceae
LASC	<i>Lappula myosotis</i> Moench	European beggar's lice	Boraginaceae
LASE	<i>Lactuca serriola</i> L.	prickly lettuce	Asteraceae
LEAU2	<i>Leontodon autumnalis</i> L.	fall dandelion	Asteraceae
LEHI4	<i>Leontodon hirtus</i> L.	rough hawkbit	asteraceae
LEDE	<i>Lepidium densiflorum</i> Schrad	common peppergrass	Brassicaceae
LER2	<i>Lepidium ramosissimum</i>	manybranched pepperwood	Brassicaceae
LEMA8	<i>Leucanthemum maximum</i>	Shasta daisy	Asteraceae
LIVU2	<i>Linaria vulgaris</i> P. Mill.	butter and eggs	Scrophulariaceae
LOAR10	<i>Festuca arundinacea</i> (Schreb.) S.J. Darbyshire	tall fescue	Poaceae
LOPEM2	<i>Lolium multiflorum</i> Lam.	Italian rye grass	Poaceae
LOPEP	<i>Lolium perenne</i> L.	perennial rye grass	Poaceae
LOCO6	<i>Lotus corniculatus</i>	bird's foot trefoil	Fabaceae
LOPE80	<i>Lotus pedunculatus</i>	big trefoil	Fabaceae
LUPOP4	<i>Lupinus x pseudopolyphyllus</i> *	Kenai lupine	Fabaceae
LUPOP4	<i>Lupinus polyphyllus</i> Lindl.	large-leaf lupine	Fabaceae
LYCH3	<i>Lychnis chalcidonica</i> L.	Maltese cross	Caryophyllaceae
LYHY2	<i>Lythrum hyssopifolia</i> L.*	hyssop loosestrife	Lythraceae
LYSA2	<i>Lythrum salicaria</i>	purple Loosestrife	Lythraceae
MELU	<i>Medicago lupulina</i> L.	black medic, hop clover	Fabaceae
MEMI	<i>Medicago minima</i> L.	burr medic	Fabaceae
MESAF	<i>Medicago falcata</i> L.	yellow alfalfa	Fabaceae
MESP3	<i>Mentha spicata</i> L.	spearmint	Lamiaceae
MIOR	<i>Antirrhinum orontium</i> L.	snapdragon	Scrophulariaceae
MYMU	<i>Mycelis muralis</i> L.	wall lettuce	Asteraceae
MYSC	<i>Myosotis scorpioides</i> L.	true forget-me-not	Boraginaceae
MYSP2	<i>Myriophyllum spicatum</i> L.	Eurasian watermilfoil	Halagoraceae
NEPA3	<i>Neslia paniculata</i> (L.) Desv.	ball mustard	Brassicaceae
ONAC	<i>Onopordum acanthium</i>	Scotch thistle	Asteraceae

CODE	Scientific name (Hulten 1968; or Kartesz *)	Common Name	Family
ONVI	<i>Onobrychis viciifolia</i> Scop.*	sainfoin, saintfoin	Fabaceae
PANU3	<i>Papaver nudicaule</i> L.	Iceland poppy	Papaveraceae
PHCA5	<i>Phalaris canariensis</i> L.	Canary grass	Poaceae
PLLA	<i>Plantago lanceolata</i> L.	ribgrass, buckhorn, English plantain	Plantaginaceae
POAV	<i>Polygonum aviculare</i> L.	knotweed	Polygonaceae
POCO	<i>Poa compressa</i> L.	Canada bluegrass	Poaceae
POCO10	<i>Polygonum convolvulus</i> L.	black bindweed, wild buckwheat	Polygonaceae
POCU6	<i>Polygonum cuspidatum</i> Sieb. & Zucc.	Japanese knotweed	Polygonaceae
POGR9	<i>Potentilla gracilis</i> Dougl. ex Hook.	slender cinquefoil	Rosaceae
POLA4	<i>Polygonum lapathifolium</i> L.	willow weed	Polygonaceae
POPE3	<i>Polygonum persicaria</i> l.	lady's-thumb	Rosaceae
POPRI2	<i>Poa subcoerulea</i> Sm.	spreading bluegrass	Poaceae
POP RP2	<i>Poa angustifolia</i> L.	Kentucky bluegrass	Poaceae
POTR2	<i>Poa trivialis</i> L.	rough bluegrass	Poaceae
RAAC3	<i>Ranunculus acris</i> L.	tall buttercup	Ranunculaceae
RASA2	<i>Raphanus sativus</i> L.	cultivated radish	Brassicaceae
ROSY	<i>Rorippa sylvestris</i> (L.) Bess.*	creeping yellowcress	Brassicaceae
RUACA	<i>Rumex acetosella</i> L. spp. <i>Acetosa</i>	garden sorrel	Polygonaceae
RUAC3	<i>Rumex acetosella</i> L. ssp. <i>Acetosella</i>	sheep sorrel	Polygonaceae
RUAC3	<i>Rumex acetosella</i> L. ssp. <i>angiocarpus</i> (Murb.) Murb.	sheep sorrel	Polygonaceae
RUOB	<i>Rumex obtusifolius</i> L.	bitter dock	Polygonaceae
SAOF4	<i>Saponaria officinalis</i> L.	bouncingbet	Caryophyllaceae
SCMA8	<i>Scirpus paludosus</i> A. Nels.	bayonet grass	Cyperaceae
SEJA	<i>Senecio jacobea</i> L.	tansy ragwort, Stinky willie	Asteraceae
SEVI4	<i>Setaria viridis</i> (L.) Beauv.	green bristlegrass	Poaceae
SIAL2	<i>Sisymbrium altissimum</i> L.	tumbling mustard	Brassicaceae
SIAL5	<i>Sinapis alba</i> L.	white mustard	Brassicaceae
SIAR4	<i>Sinapsis arvensis</i> L.	charlock	Brassicaceae
SILA21	<i>Silene latifolia</i> Poir.	bladder campion	Caryophyllaceae
SINO	<i>Melandrium noctiflorum</i> (L.) Fries	night-flowering catchfly	Caryophyllaceae
SOAR2	<i>Sonchus arvensis</i> L.	perennial Sowthistle	Asteraceae
SOAU	<i>Sorbus aucuparia</i> L.	European mountain ash	Rosaceae
SOOL	<i>Sonchus oleraceus</i> L.	common sowthistle	Asteraceae
SOSO2	<i>Sorbaria sorbifolia</i> (L.) A.Braun	false spirea	Rosaceae
SPAR	<i>Spergula arvensis</i> L.	spurry	Caryophyllaceae
SPRU	<i>Spergularia rubra</i> (L.) J. & K. Presl	purple sand spurry	Caryophyllaceae
SYOF	<i>Symphytum officinale</i> L.	common comfrey	Boraginaceae
TALA2	<i>Taraxacum scanicum</i> Dahlst.	rock dandelion	Asteraceae
TAVU	<i>Tanacetum vulgare</i> L.	common tansy, golden buttons	Asteraceae
THAR5	<i>Thlaspi arvense</i> L.	pennycress	Brassicaceae
TRDU2	<i>Trifolium dubium</i> Sibthorp	suckling clover	Fabaceae
TRAE	<i>Triticum aestivum</i> L.	wheat	Poaceae
TRDU	<i>Tragopogon dubius</i> Scop.	yellow salsify, goatsbeard	Asteraceae
TRPE21	<i>Tripleurospermum inodorum</i> (L.) Schultz-Bip.	scentless mayweed	Asteraceae
VESES	<i>Veronica serpyllifolia</i> L. subsp. <i>serpyllifolia</i>	thyme-leaf speedwell	Scrophulariaceae
VIOP	<i>Viburnum opulus</i>	American cranberrybush	Caprifoliaceae
VICRC	<i>Vicia cracca</i> L. ssp. <i>Cracca</i>	bird vetch, dog pea	Fabaceae
VITR	<i>Viola tricolor</i> L.	johnny jumpup	Violaceae

## APPENDIX B. Class II Species List

**Class 2. Widespread, lower priority plants (invasive plants that are widespread across Southeast Alaska). One voucher for each of these species will be collected.**

CODE	Scientific Name (Hulten 1968; or Kartesz *)	Common Name	Family
ACPT	<i>Achillea ptarmica</i> L.	sneezeweed	Asteraceae
AGCR	<i>Agropyron cristatum</i> (L.) Gaertn.	crested wheatgrass	Poaceae
CABU2	<i>Capsella bursa-pastoris</i> (L.) Medik	shepherd's purse	Brassicaceae
CHAL7	<i>Chenopodium album</i> L.,	lambsquarters	Chenopodiaceae
DAGL	<i>Dactylis glomerata</i> L.	orchard grass	Poaceae
DIPU	<i>Digitalis purpurea</i> L.,	purple foxglove	Scrophulariaceae
ELRE4	<i>Elymus repens</i> (L.) Gould	quackgrass	Poaceae
GEPU2	<i>Geranium pusillum</i> L.*	small geranium	Geraniaceae
LEVU	<i>Leucanthemum vulgare</i> Lam.	oxeye daisy	Asteraceae
MADI6	<i>Matricaria discoidea</i> DC.	disk mayweed or pineappleweed	Asteraceae
MESA	<i>Medicago sativa</i> L.	alfalfa	Fabaceae
MEAL12	<i>Melilotus alba</i> Medikus	white sweetclover	Fabaceae
MEOF	<i>Melilotus officinalis</i> (L.) Lam.	yellow sweetclover	Fabaceae
PASM	<i>Pascopyrum smithii</i> (Rydb.) A. Love., synonym <i>Agropyron smithii</i> Rydb.	western wheatgrass	Poaceae
PHAR3	<i>Phalaris arundinacea</i>	reed canary grass	Poaceae
PHPR3	<i>Phleum pratense</i> L.	common timothy	Poaceae
PLMA2	<i>Plantago major</i> L.	common plantain	Plantaginaceae
POAN	<i>Poa annua</i> L.	annual bluegrass	Poaceae
POPR	<i>Poa pratensis</i> L.	Kentucky bluegrass	Poaceae
RARE3	<i>Ranunculus repens</i> L.	creeping buttercup	Ranunculaceae
RUCR	<i>Rumex crispus</i> L.	curly dock	Polygonaceae
RULO2	<i>Rumex longifolius</i> DC.	garden dock	Polygonaceae
SEVU	<i>Senecio vulgaris</i> L.	common groundsel	Asteraceae
SOAS	<i>Sonchus asper</i> (L.) Hill	spiny sowthistle	Asteraceae
STME2	<i>Stellaria media</i> (L.) Vill	common chickweed	Caryophyllaceae
TAOF	<i>Taraxacum officinale</i> G.H. Weber ex Wiggers	common dandelion	Asteraceae
TRAU2	<i>Trifolium aureum</i> Pollich	golden clover	Fabaceae
TRHY	<i>Trifolium hybridum</i> L.	alsike clover	Fabaceae
TRPR2	<i>Trifolium pratense</i> L.	red clover	Fabaceae
TRRE3	<i>Trifolium repens</i> L.	white clover	Fabaceae

## APPENDIX C. Non-native Species List

Non-native species found at survey areas. “x” == within plot “x\*” = outside plot

Species Name	Common Name	Family	Hoonah	False Island	Kruzof	Sitka
<i>Agrostis stolonifera</i>	creeping bentgrass	Poaceae	x	x		x
<i>Alchemilla mollis</i>	lady's mantle	Rosaceae	x			
<i>Alopecurus geniculatus</i>	water foxtail	Poaceae	x			
<i>Alopecurus pratensis</i>	meadow foxtail	Poaceae	x			x
<i>Anthoxanthum odoratum</i>	sweet vernal grass	Poaceae				x
<i>Arrhenatherum elatius</i>	tall oatgrass	Poaceae	x			
<i>Brassica rapa</i>	field mustard	Cruciferae	x			x
<i>Capsella bursa-pastoris</i>	shepherd's purse	Brassicaceae	x			
<i>Cerastium fontanum</i>	mouse-ear chickweed	Caryophyllaceae	x	x	x	x
<i>Cytisus scoparius</i>	Scotch broom	Fabaceae				x
<i>Dactylis glomerata</i>	orchard grass	Poaceae	x	x		x
<i>Deschampsia elongata</i>	slender hairgrass	Poaceae	x	x		
<i>Digitalis purpurea</i>	purple foxglove	Scrophulariaceae			x	x
<i>Elymus repens</i>	quack grass	Poaceae	x			x
<i>Erysimum cheiranthoides</i>	wormseed mustard	Brassicaceae	x*			x*
<i>Galiopsis tetrahit</i>	brittlestem hempenettle	Lamiaceae	x*			x
<i>Geranium robertianum</i>	herb Robert	Geraniaceae				x
<i>Gnaphalium palustre</i>	marsh cudweed	Asteraceae				x
<i>Hesperis matronalis</i>	dame's rocket	Brassicaceae				x
<i>Hieracium auranticum</i>	orange hawkweed	Asteraceae				x
<i>Hieracium umbellatum</i>	narrow-leaf hawkweed	Asteraceae		x		x
<i>Holcus lanatus</i>	common velvet-grass	Poaceae				x
<i>Holcus mollis</i>	creeping velvet-grass	Poaceae				x
<i>Hordeum jubatum</i>	foxtail barley	Poaceae	x			x*
<i>Hypochoeris radicata</i>	hairy cat's ear	Asteraceae				x
<i>Impatiens glandulifera</i>	ornamental jewelweed	Balsaminaceae				x
<i>Iris pseudacorus</i>	yellow flag iris	Iridaceae	x			x*
<i>Lapsana communis</i>	nipplewort	Asteraceae		x		
<i>Leucanthemum maximum</i>	Shasta daisy	Asteraceae				x
<i>Leucanthemum vulgare</i>	oxeye daisy	Asteraceae	x	x	x*	x
<i>Linaria vulgaris</i>	butter-and-eggs	Scrophulariaceae				x
<i>Lolium arundinacea</i>	tall fescue	Poaceae	x	x	x	x
<i>Lolium perenne</i>	perennial rye grass	Poaceae		x		x
<i>Lolium perenne</i> var. <i>multiflorum</i>	Italian rye grass	Poaceae	x			x
<i>Lupinus polyphyllus</i>	large-leaf lupine	Fabaceae	x*			x
<i>Lysimachia nummularia</i>	creeping jenny	Primulaceae				x

Species Name	Common Name	Family	Hoonah	False Isl.	Kruzof	Sitka
<i>Matricaria discoidea</i>	pineappleweed	Asteraceae	x	x	x	x
<i>Medicago lupulina</i>	black medic	Fabaceae				x
<i>Myosotis scirpoides</i>	true forget-me-not	Boraginaceae				x
<i>Myosotis sylvatica</i>	wood forget-me-not	Boraginaceae	x			x
<i>Myrrhis odorata</i>	sweet Cicely	Apiaceae	x			
<i>Phalaris arundinacea</i>	reed canary grass	Poaceae	x	x	x	x
<i>Phleum pratense</i>	Timothy grass	Poaceae	x	x	x	x
<i>Plantago major</i>	common plantain	Plantaginaceae	x	x	x	x
<i>Poa annua</i>	annual bluegrass	Poaceae	x	x	x	x
<i>Poa compressa</i>	Canada bluegrass	Poaceae				x
<i>Poa palustris</i>	fowl bluegrass	Poaceae	x	x		x
<i>Poa pratensis</i>	kentucky bluegrass	Poaceae	x	x	x	x
<i>Polygonum aviculare</i>	knotweed	Polygonaceae	x			
<i>Polygonum cuspidatum</i>	Japanese knotweed	Polygonaceae				x
<i>Ranunculus acris</i>	buttercup	Ranunculaceae	x			
<i>Ranunculus repens</i>	creeping buttercup	Ranunculaceae	x	x	x	x
<i>Rosa rugosa</i>	rugosa rose	Rosaceae	x			x
<i>Rumex acetosella</i> ssp. <i>Acetosella</i>	sheep sorrel	Polygonaceae	x	x		x
<i>Rumex crispus</i>	curly dock	Polygonaceae	x*			x
<i>Rumex obtusifolius</i>	bitter dock	Polygonaceae	x	x*		x
<i>Sagina procumbens</i>	bird's-eye pearlwort	Caryophyllaceae	x	x		x
<i>Senecio jacobea</i>	tansy ragwort	Asteraceae				x
<i>Senecio vulgaris</i>	common groundsel	Asteraceae	x			x
<i>Sonchus arvensis</i>	perennial sowthistle	Asteraceae	x			
<i>Sorbus aucuparia</i>	European mountain ash	Rosaceae	x			x
<i>Stellaria media</i>	common chickweed	Caryophyllaceae	x*	x		x
<i>Symphytum officinale</i>	common comfrey	Boraginaceae	x*			x
<i>Tanacetum vulgare</i>	common tansy	Asteraceae	x			x
<i>Taraxacum officinale</i>	common dandelion	Asteraceae	x	x	x	x
<i>Trifolium dubium</i>	small hop-clover	Fabaceae				x
<i>Trifolium hybridum</i>	trifolium hybridum	Fabaceae	x	x	x	x
<i>Trifolium pratense</i>	red clover	Fabaceae	x	x		x
<i>Trifolium repens</i>	white clover	Poaceae	x	x	x	x
<i>Tripleurospermum inoderum</i>	scentless mayweed	Asteraceae	x			
<i>Veronica serpyllifolia</i> ssp. <i>Serpyllifolia</i>	thyme-leaf speedwell	Scrophulariaceae	x	x		x



## APPENDIX D. List of Voucher Specimens

ID #	Date collected	Scientific Name	Family	Plot ID	Location	Elevation	Habitat
1	7/11/2007	<i>Lolium arundinacea</i>	Poaceae	HRD 8513-01	Chichagof Is. end of East Point Rd.	130 ft.	Roadside, limestone
2	7/14/2007	<i>Deschampsia elongata</i>	Poaceae	HRD 8510-11	Chichagof Is. Pavlof Valley, 1mi W of 8513-8510	180 ft.	Roadside, limestone
3	7/14/2007	<i>Plantago major</i>	Plantaginaceae	HRD 8510-11	Chichagof Is. Pavlof Valley, 1mi W of 8513-8510	180 ft.	Roadside, limestone
4	7/14/2007	<i>Poa annua</i>	Poaceae	HRD 8510-11	Chichagof Is. Pavlof Valley, 1mi W of 8513-8510	180 ft.	Roadside, limestone
5	7/14/2007	<i>Poa palustris</i>	Poaceae	HRD 8510-11	Chichagof Is. Pavlof Valley, 1mi W of 8513-8510	180 ft.	Roadside, limestone
6	7/14/2007	<i>Lolium arundinacea</i>	Poaceae	HRD 8510-11	Chichagof Is. Pavlof Valley, 1mi W of 8513-8510	180 ft.	Roadside, limestone
8	7/14/2007	<i>Deschampsia beringensis</i>	Poaceae	HRD 8510-11	Chichagof Is. Pavlof Valley, 1mi W of 8513-8510	180 ft.	Roadside, limestone
9	7/15/2007	<i>Poa palustris</i>	Poaceae	HRD 8510-24	Chichagof Is. Pavlof Valley, 4.5mi W of 8513-8510	180 ft.	Roadside, limestone
10	7/15/2007	<i>Agrostis exarta</i>	Poaceae	HRD 8510-24	Chichagof Is. Pavlof Valley, 4.5mi W of 8513-8510	180 ft.	Rock pit, limestone
11	7/17/2007	<i>Ranunculus repens</i>	Ranunculaceae	HRD 8502-48	Chichagof Is. Hoonah, USFS bunkhouse	40 ft.	Yard, Roadside
12	7/17/2007	<i>Trifolium repens</i>	Poaceae	HRD 8502-48	Chichagof Is. Hoonah, USFS bunkhouse	50 ft.	Yard, Roadside
13	7/17/2007	<i>Senecio vulgaris</i>	Asteraceae	HRD 8502-48	Chichagof Is. Hoonah, USFS bunkhouse	50 ft.	Yard, Roadside
14	7/17/2007	<i>Trifolium pratense</i>	Fabaceae	HRD 8502-48	Chichagof Is. Hoonah, USFS bunkhouse	50 ft.	Yard, Roadside
15	7/17/2007	<i>Phleum pratense</i>	Poaceae	HRD 8502-48	Chichagof Is. Hoonah, USFS bunkhouse	50 ft.	Yard, Roadside
16	7/17/2007	<i>Phalaris arundinacea</i>	Poaceae	HRD 8502-48	Chichagof Is. Hoonah, USFS bunkhouse	50 ft.	Yard, Roadside
17	7/17/2007	<i>Taraxacum officinale</i>	Asteraceae	HRD 8503-48	Chichagof Is. Hoonah, USFS bunkhouse	50 ft.	Yard, Roadside
18	7/18/2007	<i>Sagina procumbens</i>	Caryophyllaceae	HRD 8510-35	Chichagof Is. Pavlof Valley, 7mi W of 8513-8510	70 ft.	Roadside, limestone

ID #	Date collected	Scientific Name	Family	Plot ID	Location	Elevation	Habitat
19	7/18/2007	<i>Ranunculus macounii</i>	Ranunculaceae	HRD 8510-35	Chichagof Is. Pavlof Valley, 7mi W of 8513-8510	70 ft.	Roadside, limestone
20	7/19/2007	<i>Tanacetum vulgare</i>	Asteraceae	HRD 85101-01	Chichagof Is. Kennel Ck. Landing	12 ft.	Roadside
21	7/19/2007	<i>Trifolium pratense</i>	Fabaceae	HRD 85101-01	Chichagof Is. Kennel Ck. Landing	12 ft.	Roadside
22	7/19/2007	<i>Leucanthemum vulgare</i>	Asteraceae	HRD 85101-01	Chichagof Is. Kennel Ck. Landing	12 ft.	Roadside
23	7/18/2007	<i>Veronica serpyllifolia</i> ssp. <i>serpyllifolia</i>	Caprifoliaceae	HRD 8519-03	Chichagof Is., Kennel Ck. Rd.	200 ft.	Roadside
24	7/19/2007	<i>Polygonum fowleri</i>	Polygonaceae	HRD 85101-01	Chichagof Is. Kennel Ck. Landing	12 ft.	Disturbed beach
25	7/19/2007	<i>Matricaria discoidea</i>	Asteraceae	HRD 85101-01	Chichagof Is. Kennel Ck. Landing	12 ft.	Roadside
26	7/19/2007	<i>Dactylis glomerata</i>	Poaceae	HRD 85101-01	Chichagof Is. Kennel Ck. Landing	12 ft.	Roadside
27	7/25/2007	<i>Hordeum jubatum</i>	Poaceae	HRD 8502-45	Chichagof Is. Hoonah, overburden dump east	113 ft.	Dump
28	7/26/2007	<i>Vicia nigricans</i> ssp. <i>gigantea</i>	Fabaceae	near plot HRD 8530-01	Chichagof Is. Wukuklook Beach trail	12 ft.	Uplift meadow
29	7/27/2007	<i>Capsella bursa-pastoris</i>	Brassicaceae	HRD 8530-12	Chichagof Is. False Bay Picnic area	11 ft.	Roadside, limestone
30	7/27/2007	<i>Cerastium fontanum</i>	Caryophyllaceae	HRD 8530-12	Chichagof Is. False Bay Picnic area	11 ft.	Roadside, limestone
31	7/27/2007	<i>Arrhenatherum elatius</i>	Poaceae	HRD 8530-08	Chichagof Is. False Bay, 1mi. S. of False Bay	204 ft.	Roadside, limestone
32	7/28/2007	<i>Myrrhis oderata</i>	Apiaceae	HRD 8530-74	Chichagof Is. Spasski, 3mi E. of Spasski Bridge	239 ft.	Roadside ditch, limestone
33	7/29/2007	<i>Tripleurospermum inoderum</i>	Asteraceae	HRD 8502-45	Chichagof Is. Hoonah, Overburden dump east	113 ft.	Dump
34	7/29/2007	<i>Elymus repens</i>	Poaceae	HRD 8502-45A	Chichagof Is. Hoonah, Overburden dump east	87 ft.	Dump
35	7/29/2007	<i>Sonchus arvensis</i>	Asteraceae	HRD 8502-56	Chichagof Is. Hoonah, Overburden dump east	43 ft.	Dump
36	7/29/2007	<i>Ranunculus repens</i>	Ranunculaceae	HRD 8502-56	Chichagof Is. Hoonah, Overburden dump east	43 ft.	Dump
37	7/29/2007	<i>Rumex crispus</i>	Polygonaceae	HRD 8502-56	Chichagof Is. Hoonah, Overburden dump east	43 ft.	Dump
38	7/29/2007	<i>Leucanthemum vulgare</i>	Asteraceae	HRD 8502-56	Chichagof Is. Hoonah, Overburden dump east	43 ft.	Dump
39	7/29/2007	<i>Trifolium pratense</i>	Fabaceae	HRD 8502-56	Chichagof Is. Hoonah, Overburden dump east	43 ft.	Dump

ID #	Date collected	Scientific Name	Family	Plot ID	Location	Elevation	Habitat
40	7/29/2007	<i>Agrostis stolonifera</i>	Poaceae	HRD 8502-56	Chichagof Is. Hoonah, Overburden dump east	43 ft.	Dump
41	7/29/2007	<i>Sonchus arvensis</i>	Asteraceae	HRD 8502-45	Chichagof Is. Hoonah, Overburden dump east	113 ft.	Dump
48	7/30/2007	<i>Polygonum fowleri</i>	Poaceae	HRD	Chichagof Is. Hoonah Boat Harbor	20 ft.	Roadside
49	7/30/2007	<i>Erysimum cheiranthoides</i>	Brassicaceae	HRD	Chichagof Is. Hoonah Boat Harbor	20 ft.	Roadside
50	7/29/2007	<i>Senecio vulgaris</i>	Asteraceae	HRD 8502-56	Chichagof Is., Hoonah, Overburden dump/rock quarry Icy Straits Pt	43 ft.	Dump
51	7/29/2007	<i>Myosotis sylvatica</i>	Boraginaceae	HRD 8502-54	Chichagof Is., Hoonah, cemetery by ferry terminal	40 ft.	Mown grassy area
52	7/29/2007	<i>Hordeum jubatum</i>	Poaceae	HRD 8502-45	Chichagof Is. Hoonah Overburden dump east, .2 mi E. of E. airport entrance.	113 ft.	Dump
53	7/29/2007	<i>Agrostis stolonifera</i>	Poaceae	HRD 8502-45	Chichagof Is. Hoonah Overburden dump east, .2 mi E. of E. airport entrance.	113 ft.	Dump
54	8/6/2007	<i>Lolium perenne</i>	Poaceae	SRD 7540-01	Chichagof Is. False Island Fuel storage area	31 ft.	Roadside
55	8/6/2007	<i>Hieracium umbellatum</i>	Asteraceae	SRD 7540-04	Chichagof Is. False Island, 1mi. SE of dock	55 ft.	Roadside
56	8/6/2007	<i>Veronica serpyllifolia</i> ssp. <i>serpyllifolia</i>	Scrophulariaceae	SRD 7540-17	Chichagof Is. False Island, 1.5mi W 7540-7544	368 ft.	Roadside
57	8/11/2007	<i>Stellaria media</i>	Caryophyllaceae	SRD 7540-42	Chichagof Is. False Island, Sitkoh River Bridge	44 ft.	Roadside
58	8/11/2007	<i>Hieracium umbellatum</i>	Asteraceae	SRD 7540-51	Chichagof Is. False Island, 1mi S. 7540-7553	174 ft.	Roadside
59	8/13/2007	<i>Lolium perenne</i> var. <i>multiflorum</i>	Poaceae	SRD 7577-09	Baranof Is. Sitka, Blue Lk. Rd. Thimbleberry Lk.Trail	142 ft.	Roadside
60	8/14/2007	<i>Senecio jacobea</i>	Asteraceae	SRD FH11-52A	Baranof Is. Sitka, Halibut Pt. Rd. .75mi	30 ft.	Roadside
61	8/14/2007	<i>Holcus lanatus</i>	Poaceae	SRD FH11-52	Baranof Is. Sitka, Halibut Pt. Rd. .5mi	33 ft.	Vacant lot
62	8/14/2007	<i>Anthoxanthum odoratum</i>	Poaceae	SRD7511-01	Baranof Is. Sitka, USFS Sitka Work Center	20 ft.	Yard, Roadside
63	8/14/2007	<i>Holcus mollis</i>	Poaceae	SRD FH11-55	Baranof Is. Sitka, Sandy Beach Parking	12 ft.	Roadside
64	8/14/2007	<i>Gnaphalium palustre</i>	Asteraceae	SRD FH11-53	Baranof Is. Sitka, Seamar intersection	17 ft.	Roadside

ID #	Date collected	Scientific Name	Family	Plot ID	Location	Elevation	Habitat
65	8/13/2007	<i>Rumex acetosella</i> ssp. <i>acetosella</i>	Polygonaceae	SRD FH11-03	Baranof Is. Sitka, E. end Sawmill Ck. Rd	65 ft.	Roadside
66	8/13/2007	<i>Erysimum cheiranthoides</i>	Brassicaceae	SRD 7569-01	Baranof Is. Sitka, Sawmill Ck. Campground	137 ft.	Roadside
67	9/4/2007	<i>Gnaphalium palustre</i>	Asteraceae	SRD FH11-20	Baranof Is. Sitka, Sawmill CK. Road, Jamestown Bay	12 ft.	Roadside
68	9/7/2007	<i>Anthemis</i> sp.	Asteraceae	SRD FH11-21	Baranof Is. Sitka, Sawmill Ck Road, Jamestown Bay	12 ft.	Roadside
69	8/9/2007	<i>Hieracium umbellatum</i>	Asteraceae	SRD 7540-25	Chichagof Is. False Island, .5mi. W. of 7577-7540	582 ft.	Roadside
70	9/8/2007	<i>Cytisus scoparius</i>	Fabaceae	SRD FH11-26	Baranof Is. Sitka, Sawmill Ck Road at Wolf Dr.	11 ft.	Garden
71	9/4/2007	<i>Geranium robertianum</i>	Geraniaceae	SRD FH11-20	Baranof Is. Sitka, Sawmill Ck Road, Jamestown Bay	12 ft.	Roadside
72	9/4/2007	<i>Hesperis matronalis</i>	Brassicaceae	SRD FH11-20	Baranof Is. Sitka, Sawmill Ck Road, Jamestown Bay	12 ft.	Roadside
73	9/8/2007	<i>Medicago lupulina</i>	Fabaceae	SRD Japonski-02	Japonski Is. Sitka, Airport Rd	12 ft.	Roadside
74	9/8/2007	<i>Trifolium dubium</i>	Fabaceae	SRD FH11-19	Baranof Is. Sitka, Sawmill CK. Road, Jamestown Bay	12 ft.	Roadside
75	9/4/2007	<i>Geranium robertianum</i>	Geraniaceae	SRD FH11-18	Baranof Is. Sitka, Sawmill CK. Road at Cedar Beach Rd.	21 ft.	Roadside ditch
76	9/7/2007	<i>Symphytum officinale</i>	Boraginaceae	SRD FH11-22	Baranof Is. Sitka, Sawmill CK. Road at Price St.	12 ft.	Roadside ditch
77	9/7/2007	<i>Sorbus aucuparia</i>	Rosaceae	SRD FH11-22	Baranof Is. Sitka, Sawmill CK. Road at Price St.	12 ft.	Garden
78	8/21/2007	<i>Poa annua</i>	Poaceae	SRD 7590-09	Kruzof Is., Iris Meadows Road	27 ft.	Shady Roadside
79	8/20/2007	<i>Agrostis mertensii</i>	Poaceae	SRD 7591-07	Kruzof Is., Upper Twin Lakes Rd.	334 ft.	Roadside
80	9/7/2007	<i>Lupinus polyphyllus</i>	Fabaceae	SRD FH11-21	Baranof Is. Sitka, Sawmill CK. Road, rock outcrop by Jamestown Bay	12 ft.	Roadside
81	8/14/2007	<i>Digitalis purpurea</i>	Scrophulariaceae	SRD FH11-54	Baranof Is. Sitka, Halibut Pt. Road, 1 mi. N of Katlian	16 ft.	Roadside
82	9/5/2007	<i>Polygonum cuspidatum</i>	Polygonaceae	SRD FH11-22	Baranof Is. Sitka, Sawmill CK. Road at Price St.	12 ft.	Garden
83	7/29/2007	<i>Alchemilla mollis</i>	Rosaceae	HRD 8502-45A	Chichagof Is. Hoonah, Overburden dump east, .2 mi. E. of E. airport entrance	113 ft.	Dump

ID #	Date collected	Scientific Name	Family	Plot ID	Location	Elevation	Habitat
84	7/29/2007	<i>Rumex crispus</i>	Polygonaceae	HRD 8502-53	Chichagof Is. Hoonah, Yard across from N. end of Cemetery Island	35 ft.	Yard
85	8/14/2007	<i>Rumex oblongifolia</i>	Polygonaceae	SRD FH11-57	Baranof Is. Sitka, Halibut Pt. Rd, 1.5 mi. N of Katlian	18 ft.	Roadside
86	8/14/2007	<i>Hieracium aurantiacum</i>	Asteraceae	SRD FH11-52	Baranof Is. Sitka, Halibut Pt. Rd, .5 mi. N. of Katlian	33 ft.	Garden
87	9/8/2007	<i>Linaria vulgaris</i>	Scrophulariaceae	SRD FH11-26	Baranof Is. Sitka, Sawmill Ck Road	20 ft.	Garden
88	9/7/2007	<i>Lupinus polyphyllus</i>	Fabaceae	SRD FH11-21	Baranof Is. Sitka, Sawmill CK. Road, rock cut by Jamestown Bay	12 ft.	Roadside
89	8/23/2007	<i>Poa pratensis</i>	Poaceae	SRD 7590-15	Kruzof Is., Shelikof Trailhead	12 ft.	Roadside
90	9/8/2007	<i>Hypochoeris radicata</i>	Asteraceae	SRD FH11-25	Baranof Is. Sitka, Sawmill Ck. Rd. at Indian River Rd	17 ft.	Roadside

**Map 1. Non-native Plant Survey Area, Hoonah/NE Chichagof Island**  
Plot locations (arrows), plot numbers and species code for high priority species. Surveyed roads are indicated in orange. Red circles indicate non-native diversity hotspots.

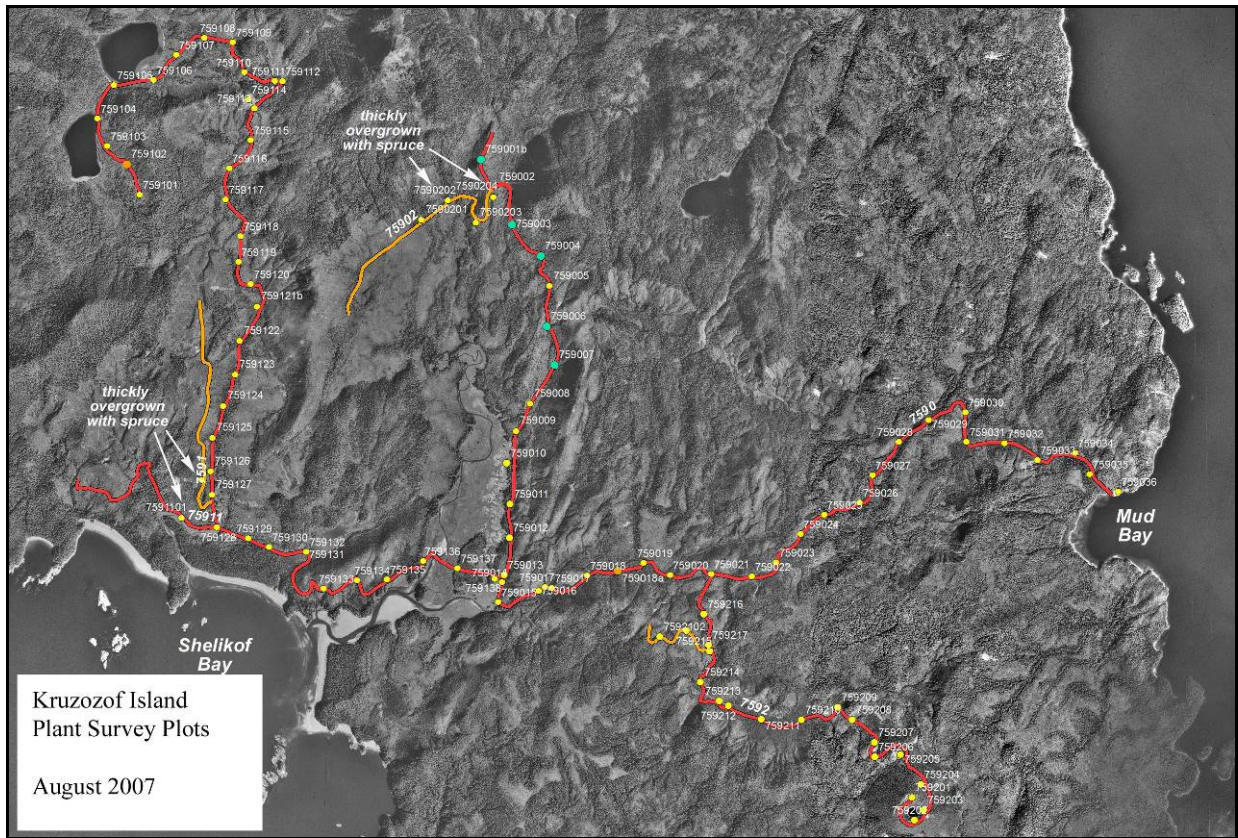




**Map 2. Non-native Plant Survey, False Island Road System, Chichagof**  
Plot locations, plot numbers and species code for high priority species are noted in black.  
Surveyed roads are indicated in orange.

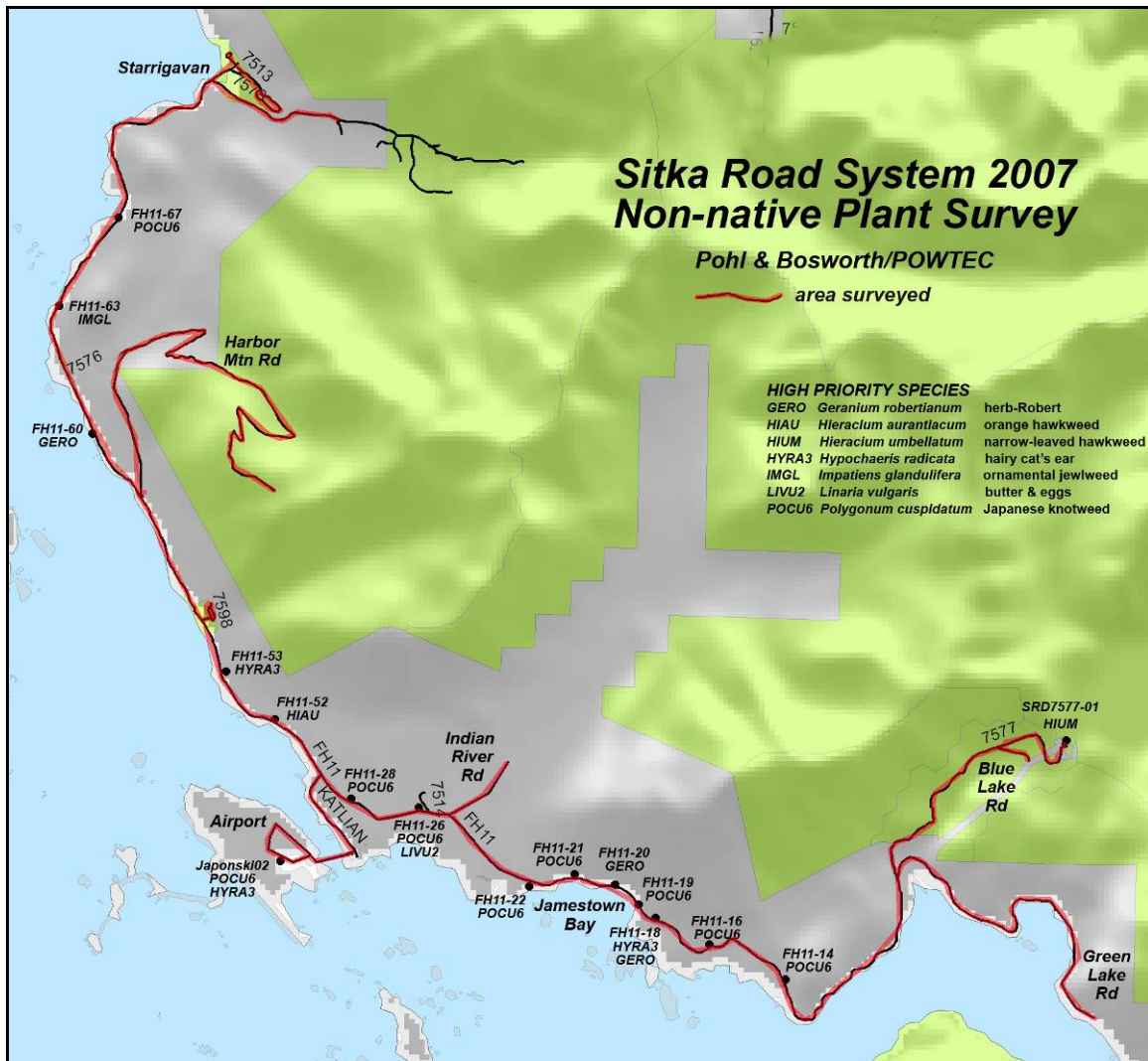


**Map 3. Non-native Plant Survey Area, Kruzof Island Road System.**  
 USDA FS Tongass National Forest digital orthophotography and roads layers with plot locations and plot numbers.





**Map 4. Non-native Plant Survey Area, Sitka Road System, Baranof Is.**  
Plot locations, plot numbers and species codes for high priority species are indicated in black. Surveyed roads are orange.



## APPENDIX F. High Priority Species Locations

**Table F.1** Hoonah High Priority Species Locations

<b>Survey Date</b>	<b>Site ID <i>DISTRICT road- plot</i></b>	<b>Species <i>AKEPIC code</i></b>	<b># of stems</b>	<b>Coordinates <i>Datum NAD 27 Decimal Degrees</i></b>	<b>Location <i>Description-- Elevation, Quad</i></b>
7/29/2007	HRD 8502-45	SOAR2	6-25	58.100587 N 135.403607 W	Overburden site -- 113 ft., JUN A-5
7/29/2007	HRD 8502-45a	SOAR2	6-25	58.100548 N 135.404402 W	Overburden site -- 87 ft., JUN A-5
7/29/2007	HRD 8502-54	SOAR2	26-50	58.118085 N 135.455730 W	Graveyard by ferry terminal entrance -- 40 ft., JUN A-5
7/29/2007	HRD 8502-56	SOAR2	26-50	58.125031 N 135.461716 W	Rock quarry with overburden, by Icy Straits Pt. -- 43 ft., JUN A-5
7/29/2007	SOAR2 Hoonah proper	SOAR2	500+	58.113477 N 135.444340 W	Corner of Hemlock and Cedar Streets -- 100 ft., JUN A-5

**Table F.2** False Island High Priority Species Locations

<b>Survey Date</b>	<b>Site ID <i>DISTRICT road- plot</i></b>	<b>Species <i>AKEPIC code</i></b>	<b># of stems</b>	<b>Coordinates <i>Datum NAD 27 Decimal Degrees</i></b>	<b>Location <i>Description-- Elevation, Quad</i></b>
8/6/2007	SRD 7540-04	HIUM	151-500	57.529429 N 135.199479 W	0.75 mi from end of road at False Island-- 55 ft., SIT C-4
8/11/2007	SRD 75404-02	HIUM	6-25	57.553755 N 135.046649 W	0.25 mi from top of False Is. Rd. spur-- 906 ft., SIT C-4
8/9/2007	SRD 7540-25	HIUM	51-150	57.542739 N 135.083775 W	False Is. Rd. pass, .5 mi. w. 7544-7540 -- 582 ft., SIT C-4
8/11/2007	SRD 7540-51A	HIUM	26-50	57.583153 N 135.057849 W	Upper False Is. Rd., 1 mi s. 7544-7553 -- 124 ft., SIT C-4

<b>Survey Date</b>	<b>Site ID <i>DISTRICT road- plot</i></b>	<b>Species <i>AKEPIC code</i></b>	<b># of stems</b>	<b>Coordinates <i>Datum NAD 27 Decimal Degrees</i></b>	<b>Location <i>Description-- Elevation, Quad</i></b>
8/10/2007	SRD 7540-15a	HIUM	51-150	57.548623 N 135.149545 W	False Island Rd. pass 311 ft., SIT C-4
8/11/2007	SRD 7540-51	HIUM	6-25	57.584888 N 135.061098 W	Upper False Is. Rd. 174 ft., SIT C-4

**Table F.3** Sitka High Priority Species

<b>Survey Date</b>	<b>Site ID <i>DISTRICT road- plot</i></b>	<b>Species <i>AKEPIC code</i></b>	<b># of stems</b>	<b>Coordinates <i>Datum NAD 27, Decimal Degrees</i></b>	<b>Location <i>Description-- Elevation, Quad</i></b>
9/5/2007	SRD FH11-14	POCU6	51-150	57.037971 N 135.253874 W	Thimbleberry L. Trailhead parking -- 63 ft., SIT A-4
9/5/2007	SRD FH11-16	POCU6	151-500	57.041139 N 135.266842 W	at base of embankment on Sawmill Ck. Rd., .5 mi. N of FH11-14 -- 115 ft., SIT A-4
9/5/2007	SRD FH11-19	POCU6	500+	57.045513 N 135.282524 W	1825 Sawmill Ck. Rd. (yellow house) -- 24 ft., SIT A-4
9/7/2007	SRD FH11-21	POCU6	51-150	57.047929 N 135.296039 W	rock cut along Sawmill Ck Rd., Jamestown Bay -- 15 ft., SIT A-4
9/7/2007	SRD FH11-22	POCU6	500+	57.047452 N 135.302420 W	Sawmill Ck Rd. at Price St. -- 19 ft., SIT A-4
9/8/2007	SRD FH11-26	POCU6	151-500	57.054612 N 135.326635 W	618 Sawmill Ck. Rd.-- 35 ft., SIT A-4
9/8/2007	SRD FH11-28	POCU6	6-25	57.055290 N 135.338213 W	Sawmill Ck Rd. at Spruce Street -- 33 ft., SIT A-5

<b>Survey Date</b>	<b>Site ID <i>DISTRICT road- plot</i></b>	<b>Species <i>AKEPIC code</i></b>	<b># of stems</b>	<b>Coordinates <i>Datum NAD 27, Decimal Degrees</i></b>	<b>Location <i>Description-- Elevation, Quad</i></b>
9/8/2007	SRD FH11-67	POCU6	51-150	57.116782 N 135.386946 W	Large rock quarry on Halibut Pt. Rd.-- 17 ft., SIT A-5
9/8/2007	SRD Japonski-02	POCU6	51-150	57.049678 N 135.352508 W	At base of embankment by Harbor parking, Harbor & Tongass -- 19 ft., SIT A-5
9/5/2007	SRD FH11-18	HYRA3	1-5	57.043789 N 135.278886 W	Sawmill Ck. Rd. and Cedar Beach Rd.-- 68 ft., SIT A-4
9/8/2007	SRD Japonski-02	HYRA3	51-150	57.049678 N 135.352508 W	Harbor Dr. & Tongass Dr. -- 19 ft., SIT A-5
8/14/2007	SRD FH11-53	HYRA3	1-5	57.069348 N 135.365328 W	Halibut Pt. Rd.-- 17 ft., SIT A-5
9/8/2007	SRD FH11-26	LIVU	51-150	57.054612 N 135.326635 W	in garden, across from 618 Sawmill Ck Rd.-- 35 ft., SIT A-4
9/8/2007	SRD FH11-63	IMGL	26-50	57.106642 N 135.398801 W	Across from post box pullout, #269, at edge of big garden, Halibut Pt. Rd.-- 29 ft., SIT A-5
9/5/2007	SRD FH11-18	GERO	1-5	57.043789 N 135.278886 W	Sawmill Ck Rd. and Cedar Beach Rd.-- 68 ft., SIT A-4
9/5/2007	SRD FH11-20	GERO	51-150	57.047290 N 135.288151 W	Near garage on beach at Jamestown Bay, Sawmill Ck. Rd.-- 21 ft., SIT A-4
9/8/2007	SRD FH11-60	GERO	6-25	57.095451 N 135.391438 W	Darrin Dr. bus stop -- 20 ft., SIT A-5
8/14/2007	SRD FH11-52	HIAU	6-25	57.064220 N 135.355050 W	1307 Halibut Pt. Rd.-- 33 ft., SIT A-5



<b>Survey Date</b>	<b>Site ID</b> <i>DISTRICT road- plot</i>	<b>Species</b> <i>AKEPIC code</i>	<b># of stems</b>	<b>Coordinates</b> <i>Datum NAD 27, Decimal Degrees</i>	<b>Location</b> <i>Description-- Elevation, Quad</i>
8/4/2007	SRD 7577-01	HIUM	1-5	57.063571 N 135.200355 W	top of Blue L. Rd., by dam-- 364 ft., SIT A-4

## APPENDIX G. Complete List of Roads Surveyed

**Table G.1** Total Road Miles

Road System	Miles	Plots
Hoonah	92.2	361
False Island	39.8	175
Kruzof Island	21.4	101
Sitka	29.4	114
<b>TOTAL</b>	183	751

**Table G.2** Hoonah Road Miles

Road	Road Name	Miles	Plots	Dates	Comments
8502	Game Creek	14.7	58	7/26 & 29/07	Includes road through Hoonah (FH51).
8508	NF Freshwater	16.6	64	7/19- 21,25,26/07	Kennel Ck Landing to Game Ck Rd. Non-natives sparse in high pass.
8509	Bayview	2.25	9	7/21/07	Major 8508 spur N of Freshwater Bay.
8510	Freshwater Bay	10.5	42	7/13- 15,18,19/07	
8511	'No. 1 Creek'	.25	1	7/13/07	Spur off top of 8510, near Tenakee.
8512	'No. 2 Creek'	1.6	6	7/14/07	Spur of 8510 on Pavlov R. tributary.
8513	East Pt (Wachusett Cove)	6.6	29	7/11-13/07	Survey started at East Point.
8514	'No. 3 Creek'	3.25	12	7/14/07	Spur of 8510, on Pavlov R. tributary.
8515	Pavlof Lake	.25	1	7/18/07	
8516	Upper Pavlof	.5	1	7/15/07	Spur off 8510 following upper Pavlof R.
8517	Kennel View	.25	1	7/18/07	Spur off 8510 on Kennel Ck trib.
8518	Hanging Valley	2.3	9	7/18/07	Major 8510 spur on upper Pavlof trib.
8519	Kennel Creek	2	8	7/18/07	Major 8510 spur following Kennel Ck.
8530	False Bay (Hoonah Gypsum)	25.1	97	7/27-29/07	Main road to False Bay & Wukuklook.
85082	S. Fork Freshwater Ck	.25	1	7/20/07	
85083	N. Fork Freshwater Ck.	.5	1	7/21/07	
85091	Bayview NE	.4	2	7/21/07	

Road	Road Name	Miles	Plots	Dates	Comments
85092	Poodle Ck.	.25	1	7/21/07	
85093	Powder Ck.	.25	1	7/21/07	
85101	Kennel Ck. Landing	.5	2	7/19/07	Former log transfer site.
85132	Wachusett Cove 2	.25	1	7/12/07	
85181	Hanging Valley Spur 1	.25	1	7/18/07	
85304	Whitestone Harbor	3.2	12	7/28/07	Includes high use beach access area.
	Hemlock Street	.2	1	7/29/07	One plot, "SOAR2 Hoonah Proper".
<b>Total</b>		92.2	361		

**Table G.3** False Island Road Miles

Road	Road Name	Miles	Plots	Dates	Comments
7540	False Island	14.0	58	8/6 & 9- 12/07	Surveyed .4 miles past intersection w/ 7553, where culverts/bridges had been removed. Scattered HIUM.
75401	7540 spur (near beach)	0.6	3	8/10/07	Road overgrown, lost past streams.
75403	Saddle Road	1.6	7	8/5/07	Completed, brushy.
75404	7540 spur (W. of Sitkoh Ck.)	1.8	8	8/11/07	Completed, brushy. HIUM at top.
7544	Sitkoh Lake Loop	8.2	34	8/9-12/07	Completed, incl. "Ocean Boulevard"—steep gullies, bridges/culverts removed.
7546	Florence Bay Road	8.3	35	8/7-9/07	Completed.
7547	West Fork White Rock	1.3	6	8/7/07	Surveyed .25 mi past barrier (large log).
7548	East Fork White Rock	3.9	22	8/7/07	Stopped where bridges were removed.
7553	West Fork Sitkoh River	0.25	2	8/9/07	Surveyed .25 mi, bridges removed.
<b>Total</b>		40	175		

**Table G.4** Kruzof Island Road Miles

Road	Road Name	Miles	Plots	Dates	Comments
7590	Iris Meadows	8.40	38	8/21-24/07	Completed. Incl Mud Bay. Poor reception uppermost pts. Parts brushy.
75902	Iris Meadows West	0.5	4	8/22/07	Old rd thickly overgrown with spruce.
7591	Twin Lakes	8.09	38	8/20 & 23/07	Completed. Cleared recently (spruce branches cut), except for last .5 mi.
75914	(Twin Lakes W spur)	0.25	1	8/20/07	Densely overgrown w/young spruce.
75911	Cuvacan Cove	0.25	1	8/21/07	Overgrown with spruce.
7592	Cinder Cone	3.44	17	8/22/07	Completed.
75921	West Cone	0.45	2	8/22/07	Thickly overgrown with alder & spruce.
<b>Total</b>		21.39	101		

**Table G.5** Sitka Road Miles

Road	Road Name	Miles	Plots	Dates	Comments
7511	Sitka USFS Work Center	0.25	1	8/14/07	
7513	Starragavan Campground	0.7	1	9/8/07	Loop
7569	Sawmill Ck Campground	0.3	1	8/13/07	
7576	Harbor Mtn. Rd.	6	25	8/14,16,30/07 9/3,6/07	(Mileage taken from new route)
7577	Blue Lake Rd.	2.25	9	8/4/07	
7578	Starragavan Creek	1	4	9/4/07	Ended at ATV trailhead by rifle range.
7581	Starragavan Picnic Ground	.5	1	9/8/07	Loop
7598	Cascade Ck Trailer Ct.	0.25	1	8/14/07	
FH11	Sawmill Ck. & Halibut Pt.	14.5	55	8/13,14,29/07 9/4,5,7,8/07	
Green L.	Green Lake Rd.	1.25	6	9/8/07	Gated, access by bicycle.
Indian R.	Indian River Rd.	0.6	4	8/13/07, 9/7/07	Surveyed to gate.
Japonski	Harbor Dr./Tongass/Seward	1	3	9/8/07	Loop
Katlian	Katlian Drive	0.75	3	9/8/07	Loop
<b>Total</b>		29.4	114		



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